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ABSTRACT

To determine whether computer assisted instruction was just a fad or a viable alternative to traditional methods for teaching English composition, a microcomputer was used in a traditional college freshman English course. The class was divided into small groups: some went to the computer lab, while others worked in the classroom. Interactive programs were designed as prewriting activities to structure brainstorming, to force students to think and rethink their topics, and to enable them to see more possibilities for handling their subjects. In response to an informal, general evaluation of the course, 70% of the students indicated that they liked the programs. However, many neither liked it as well as nor found it as helpful as individualized attention from the instructor or small group work. The greatest benefit appeared to be that students worked harder at writing their papers. Teaching difficulties were much more prevalent. Lack of sufficient equipment, inability to obtain a suitable room set up, and equipment breakdown were common complaints. Teachers also encountered logistical and scheduling problems. Based on this experience, the following conclusions were made: (1) the use of the computer will not reduce the amount of work the instructor must do; (2) the microcomputer is a viable alternative to traditional methods for teaching composition--but it is not for everybody; (3) the present form of microcomputer usage is almost certain to change drastically; (4) microcomputer usage could change the present instructional situation, for instance reducing class size; and (5) English instructors should keep an open mind at the possibilities that the computer may offer. (HOD)

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The Impact of Microcomputers on Composition Students

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THE IMPACT OF MICROCOMPUTERS ON COMPOSITION STUDENTS

Among composition instructors three attitudes toward computerized instruction prevail: eager, hesistant, and scared stiff. Unfortuantely for the those with fears, the microcomputer can no longer be ignored. It is now a technological reality, one that can be used as an educational tool. For this reason, English instructors cannot afford to sit on the sidelines while other disciplines like science and math experiment with the computer. But this does not mean that English instructors have to accept computerized instruction, and it certainly does not mean that even if we do accept it, every instructor must use it.

However, two developments make it desirable to at least try the microcomputer in the English classroom. First, is the invention of the microcomputer with word processing capabilities, which, of course, places it direrctly within the English department's realm. Second, is the increasing number of computer oriented students who are coming to us from the high schools.

Like any educational tool or method, the microcomputer must undergo several tests to determine its desirability for use in English. I would suggest five: 1) feasibililty, both financial and physical -- having enough money and administrative support to set-up a workable system; 2) acceptance by students; 3) acceptance by instructors; 4) the possibility of the microcomputer's integration into the total curriculum goals of the English department; and 5) the effectiveness of the microcomputer in achieving the goals of specific courses. The bottom line is "does it work?" Is computer assisted instruction (CAI) a fad or a viable alternative to traditional methods for teaching English grammar and composition?

In an effort to determine the answer to this question, I used the microcomputer in a traditional college freshman English course where the goal was to teach an acceptable level of college writing. I divided the class into small groups; some went to the computer lab, while others worked in the classroom. Because of our limited lab facilities, students worked around the microcomputers in groups of four, one member doing a program while the others watched until it was their turn.

The programs, which I wrote, are designed as prewriting activities. The intent is to structure brainstorming, to force students to think and rethink their topics, and to enable them to see more possibilities for handling their subjects. These programs are interactive; that is, they ask the student for information, store the student's response, and react to the student with further questioning. Such programs not only reinforce learning that has already taken place in the classroom but also enable the instructor to introduce new material. Perhaps of most value is the chance these programs provide to talk about the material in a unique way because the students become part of the process as they react to the instruction. At their conclusion, my prewiting programs provide the students with a printout of their responses which serves as a starting point for their first drafts.

On the basis of my experience with these programs, I made several observations about student attitudes toward computerized instruction, student achievement, student problems with the technology, teaching difficulties and instructor reactions.

Student attitudes toward computerized instruction were positive. They particularly liked the personalization it offered;

for example, while they were running the programs, I could talk with them about their topics. They also appreciated my having written the programs, probabaly because it made them feel special. As a result, my students and I enjoyed a close relationship. They stayed after class more often, came to my office more frequently, and generally were more desirous of talking with me about their writing than students have been in the past.

The students particularly liked the small group work in the computer lab. The groups became very close as they helped each other with their topics. When a student hesitated in responding to a question the program asked, the other students would suggest an answer. This group work proved very helpful in avoiding the isolation that we so commonly fear in connection with computer usage.

At the end of the course, I administered an informal, general evaluation of computerized instruction. On the basis of that survey, I concluded that students seemed to like CAI fairly well and to feel that it was useful. About 70% said that they liked or very much liked the programs, only one person disliked them, and the rest said they liked them somewhat. I also concluded students liked CAI better than lecture and found it more helpful, but that they did not like it as well or find it as helpful as individual attention from the instructor or small group work. For some reason, students seemed to associate CAI more with lecture than with some sort of less formal approach; therefore, I believe that the more computer instruction can be made to simulate individualized instruction, the more effective it will be.

My observations on student achievement were also for the most part positive. The computer programs definitely helped students select and narrow a topic. Many students who had no idea what to write on somehow got an idea from starting a program or from watching others do it. Students frequently asked if they could change topics in the middle of a program when they could see that the topic was not appropriate for the assignment or that they did not know enough about their subject. Students almost always modified their original topic.

The greatest benefit from computerized instruction appeared to be that students worked harder writing their papers. They tended to invest more time in the actual writing process, I think, because they felt a commitment to the topic after they had done the computer programs. Most seemed more interested in the papers than students usually do.

The effect of CAI on grades is very hard to determine because obtaining valid statistics would entail an extremely sophisticated study. However, basing my observations simply on my years of teaching, I did notice three effects: 1) the better students were much more motivated by computerized instruction than they have been in the past by traditional classroom methods, and they seemed to benefit more from it than students with less ability; 2) poorer students did better with computerized instruction than former weak students have done without it; and 3) middle ability students appeared to be affected more in motivation than in the qualilty of the finished product.

Observing student problems with technology, I found that very few students were afraid of the machine; most had played arcade games and about 1/3 had been exposed to CAI in high

school. Only those students who had never typed before exhibited any real problem.

The teaching difficulties were much more prevalent. Lack of a sufficient amount of equipment, inability to obtain a suitable room set-up and proper technical hookups, and equipment breakdown not only plagued me but are also common complaints of instructors using CAI. Besides equipment problems, I also encountered logistical and scheduling problems. As a result of having some students working in the computer lab and other students working in the classroom, I was forced to divide my time between two rooms, an obviously ineffective teaching situation. In scheduling I had to make sure my administrators assigned me to classrooms on the same floor as the computer lab and that my class times did not conflict with other uses of the computer lab.

My observations regarding instructor reactions can be divided into three phases. In the beginning of the course, I was rather terrified at the thought of using this new technological device. I was afraid the equipment would break, that my programs wouldn't run, and that students wouldn't like CAI. Many times I felt self conscious about using a device with which I had limited familiarity.

By the middle of the course, I sometimes felt that I was forcing a type of instruction on the students that they might not want. As a result, throughout the first part of the course I was hesitant to change the syllabus to accommodate the computer. But as time went on, I began to realize the increased opportunities the microcomputer afforded me as an instructor. For example, I found that the students tended to view me as another writer with

whom they could discuss compositon problems rather than as just the instructor marking up papers.

Toward the end of the course, I was beginning to feel very confident about microcomputer usage. In fact, I was ready to rewrite the whole course around the computer. I also realized that you cannot know or understand what use you will make of a device such as the computer until you actually work with it and see what it can do.

On the basis of my experience with CAI, I have come to several conclusions. First, use of the microcmputer will not reduce the amount of work the instructor must do, and it certainly will not eliminate jobs. Indeed, use of CAI is very demanding on both instructor time and quality. Second, CAI is here to stay in English. It is not a fad, but a viable alternative to traditional methods for teaching composition. However, it is not for everybody, not for all students and not for all instructors. We must bear in mind that no educational tool is appropriate for all classrooms.

Third, the present form of microcomputer usage is almost certain to change drastically. The development of the hand-held microcmoputer will obviously increase the flexibility of using CAI, the microcomputer will become better integrated into the curriculum and thus lose its reputation as a new and radical device, and of couse many new uses for the microcomputer will be found as we experiment with it on all levels of instruction.

Fourth, microcomputer usage could change our present instructional situation in several areas. For example, class size could be radically altered. New uses for the microcomputer will undoubtedly enable some classes to be larger and require

some to be smaller than they are now. In addition, class location could be changed significantly. There will perhaps be no need for students to come to a central classroom to receive instruction. Most important, the microcomputer has the capability of blurring curriculum lines. As we find new uses for CAI, we probably will be forced to rethink how we teach. Having students develop a methodology for dealing with information may become more important than the actual subject matter of specific disciplines; this could lead to different types of courses as well as to a restructuring of curriculum lines.

Finally, I believe that it is important to look realistically and with an open mind at the possibilities any new tool offers us as educators. Even if English instructors decide to reject the microcomputer, we have a responsibility to give it a chance, to evaluate what it can and cannot do, and then to make a reasoned judgment on whether or not to continue its application in our classrooms.